

tubes. They occur either at the tips of such branches where the eggs ordinarily develop, or as slight lateral bulgings of the same." I have recently had occasion in the course of my work to examine a series of longitudinal sections through *Apus cancriformis*, and I have failed to identify any such "sperm-producing centres."

On p. 144 he gives a figure representing a portion of the ovary, and at one point the epithelium of the duct is interrupted by a group of small round granules, which is labelled "testis, as occasionally found (*e. g.* in *Apus cancriformis*)." This "testis" is neither a terminal nor a lateral bulging; this figure, too, which is the only illustration of the point in question, is so crude that we ought to have further details of these "sperm-producing centres."

I will not presume to deny the possibility of hermaphroditism in the Apodidæ, however improbable it may be; I merely repeat, we wait for further evidence.

With regard to Bernard's figure of the ovary I would say one more word. Von Siebold, in a paper accompanied by beautiful figures, showed that each terminal swelling of the ovary is formed of four cells, of which the *distal* cell becomes the egg-cell, the other three being yolk-forming cells. That this is true for *Apus* a glance at a section is sufficient to demonstrate; but Bernard, in the figure referred to (illustrating presumably *Lepidurus*), represents the *proximal* cell of the four as the egg-cell. If this is really the case, we have an extremely interesting difference between the two genera.

Oxford,
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XVI.—*Descriptions of Two new Species of Eugaster* (Heterodidæ) from *East Africa*. By W. F. KIRBY, F.L.S., F.E.S., &c., Assistant in Zoological Department, British Museum.

Eugaster suakimensis.

Long. corp. 37–40 millim.

Head brown, strongly punctured above, the lower mouth-parts, the palpi, and the base of the antennæ more or less varied with testaceous; a short conical testaceous spine between the antennæ; pronotum reddish brown or blackish, varied with testaceous in front and along the median line, and with reddish behind. It is strongly rugose, with two irre-

gular longitudinal elevations on each side of the median line; front edge with a row of 4 black spines, placed at about equal distances apart; between these are two shorter ones between the middle ones in the males only, and another between the two outer ones on the right-hand side only in both sexes. The outer spines are at the front angles of the front lobe of the pronotum, and behind and above them are much larger spines at the hinder angles of front lobe. There is also a strong black spine on each side of the middle lobe of the pronotum. The hinder ridge of the pronotum bears a row of 6 or 7 black spines on each side, increasing in size towards the front. Legs brown, the coxæ and tarsi slightly varied with testaceous or reddish; front coxæ spined; all the tibiæ with a double row of short partly testaceous spines, least numerous on the middle tibiæ. Abdomen brown, dotted with testaceous, and inclining to testaceous towards the ends of the segments; the base, sides, and under surface more or less testaceous, especially in the males, and dotted with black.

Hab. Suakim. Presented by Dr. John Anderson.

Described from four specimens, two of each sex.

Allied to *E. spinulosus*, Linn., and *E. Woodii*, Kirb., but differs from both in the almost uniformly dark legs, and in markings &c.

Eugaster frater.

Long. corp. 33–35 millim.

Male.—Closely allied to the last species, but the head and pronotum are more uniformly dark. The front is less convex, the antennæ are testaceous, and the face and palpi are much varied with reddish. The coxæ and legs are testaceous, longitudinally striped with brown; and in the lightest specimen the hinder half of the pronotum and the base of the abdomen beneath incline towards testaceous, but there are no testaceous markings on the sides of the abdomen. On the front of the pronotum there are two spines at the angles, and two central spines, widely separated, but no intermediate ones; the middle lobe of the pronotum has a large spine on each side, and between them are two slight humps, behind which are two more elevations, forming short upright spines. The row of 14 large spines running round the hinder edge of the pronotum is regularly arranged and more or less testaceous.

Hab. Mombasa. Presented by D. J. Wilson, Esq., of the British East Africa Company.

Two male specimens.

The specimens appear to be slightly discoloured; but I